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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/734,403	03/08/2001	Bruce Benfield	STL9-2000-0072US1/1858P	5418

7590 05/04/2005

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EXAMINER

MOORTHY, ARAVIND K

ART UNIT	PAPER NUMBER
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2131

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/734,403

Applicant(s)

BENFIELD ET AL.

Examiner

Aravind K. Moorthy

Art Unit

2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This is in response to the amendment filed on 7 January 2005.
2. Claims 1-20 are pending in the application.
3. Claims 1-20 have been rejected.

Response to Amendment

4. The examiner approves the replacement drawing.

Response to Arguments

5. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1-4, 8-11 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al U.S. Patent No. 6,618,806 B1 in view of Abraham et al U.S. Patent No. 5,301,231.**

As to claims 1-4, 8-11 and 15-17, Brown discloses a method for integrating encryption functionality into a database system, the method comprising:

- (a) providing data encryption in a database system [column 4, lines 42-47]; and

(b) utilizing the function within structured query language statements [column 7, lines 32-42].

Brown et al does not teach at least two functions to support data encryption. Brown et al does not teach utilizing the two functions within structured query language statements. Brown et al does not teach adding the at least two functions as user-defined functions in the database system. Brown et al does not teach that the user-defined functions further comprises a first function to encrypt the user-specified data when inserted or updated in the database system. Brown et al does not teach that the user-defined functions further comprises a second function to decrypt the user-specified data when selected from the database system.

Abraham et al teaches two functions for encryption and its benefits [column 4 line 53 to column 5 line 14]. Abraham et al teaches that the user-defined functions further comprises a first function to encrypt the user-specified data when inserted or updated in the database system [column 5 line 65 to column 6 line 18]. Abraham et al teaches that the user-defined functions further comprises a second function to decrypt the user-specified data when selected from the database system [column 9, lines 1-29].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Brown et al so that the data encryption in the database system would have employed two functions. The two functions would have been utilized within SQL as taught by Brown et al. The at least two functions as user-defined functions would have been added in the database system. The user-defined functions would have comprised a first function to encrypt the user-specified data when inserted or updated in the

database system. The user-defined functions would have comprised a second function to decrypt the user-specified data when selected from the database system.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Brown et al by the teaching of Abraham et al because it allows a user to come up with user defined functions to meet a user's unique cryptographic processing needs [column 1, lines 6-13].

7. Claims 5-7, 12-14 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al U.S. Patent No. 6,618,806 B1 and Abraham et al U.S. Patent No. 5,301,231 as applied to claims 1, 8 and 15 above, and further in view of Grawrock U.S. Patent No. 6,360,322 B1.

As to claims 5-7, 12-14 and 18-20, the Brown-Abraham combination does not teach that the first function further encrypts the user-specified data with a user-specified password. The Brown-Abraham combination does not teach that the first function further encrypts with a password hint. The Brown-Abraham combination does not teach that the user-defined functions further comprise a third function to get the password hint.

Grawrock teaches a first function that encrypts the user-specified data with a user-specified password [column 4, lines 25-57]. Grawrock teaches a function that encrypts with a password hint. Grawrock teaches another function to get the password hint [column 8, lines 21-51].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the Brown-Abraham combination so that user-specified data would have been encrypted with a user-specified password. One of the functions

Art Unit: 2131

would have been a password hint. There would have been a separate function to get the password hint.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the Brown-Abraham combination by the teaching of Grawrock because it allows only bona fide users to retrieve passwords. It also adds extra security because only the user is going to know the answer to the hint questions [column 1 line 59 to column 2 line 15].

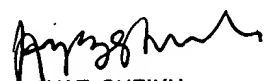
Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aravind K. Moorthy whose telephone number is 571-272-3793. The examiner can normally be reached on Monday-Friday, 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aravind K Moorthy *AM*
April 27, 2005


AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100